

Bringing Students and Teachers into the Building Process

High Performance Sustainable Schools


March 7, 2007


Karen Reagor
Kentucky NEED Project

Connecting Energy to the Classroom

- Connecting content to real life applications
- Using the school building as a learning laboratory
- School Energy Teams
- NEED Youth Awards for Energy Achievement

THE MISSING PIECE — CLASSROOM EDUCATION

 **Energy Curriculum for grades K-12**

 **Aligned to the Kentucky Program of Studies**

 **Teacher & Student Workshops**

 **Professional Development for Educators**

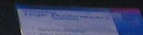


New Construction

Building Renovation

Energy Efficiency

THE N.E.E.D. PROJECT



NEED Materials

are correlated to the
Kentucky Core Content 4.1



Station 4
Energy Works:
Exploring Heat & ...

Lauren E.
Lighten...

Energy



Activities that Encourage and Support:

- cooperative learning
- math
- science
- social studies
- art
- language arts
- critical thinking skills





“Kids teaching Kids” philosophy





Kentucky NEED Teacher/Student Workshops

Provide training, curriculum materials
and hands-on kits on the subject of
ENERGY





Classroom Connections

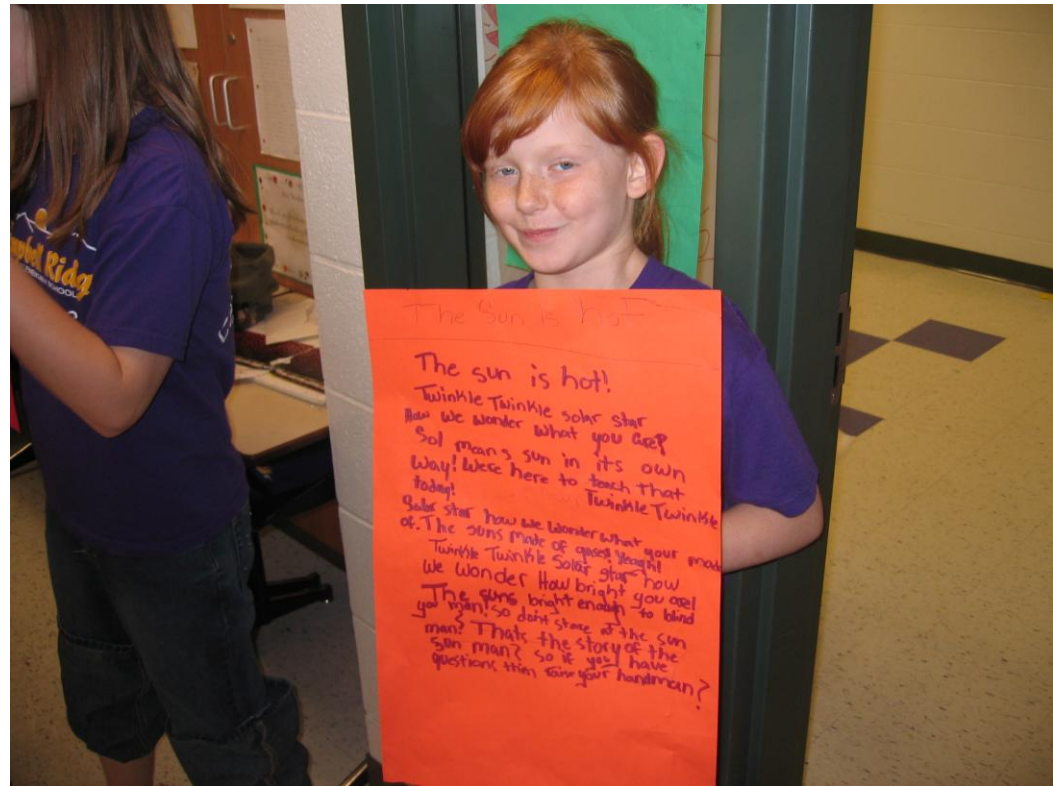
NEED's hands-on units explore energy consumption and conservation using the school as a real-world laboratory.



Leadership Development

- Solar Celebrations
- Change Light Campaign
- NEED Energy Teams

Campbell Ridge Elementary Campbell County







Laurel County Middle School

Laurel County





Letcher County High School

Letcher County Elementary





Letcher School

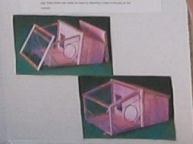
Black absorbs heat!

White reflects heat!

Radiometer

Powered by the Sun to provide heat of
sun warmth
The radiometer consists of a glass bulb
containing a vacuum and four thin wings
that are attached to a central spindle.
When light strikes the wings, the wings
begin to spin. The darker wings absorb
more heat than the lighter wings, so they
become warmer and expand, pushing the
wings away from the center. The stronger
the light, the more energy is transferred
to the wings, causing them to spin faster.

Solar House!



STARTER

20

ISLA BONITA
WELCOME
TO PARADISE

Russell Area Technology Center Russell, KY



Picadome Elementary Fayette County





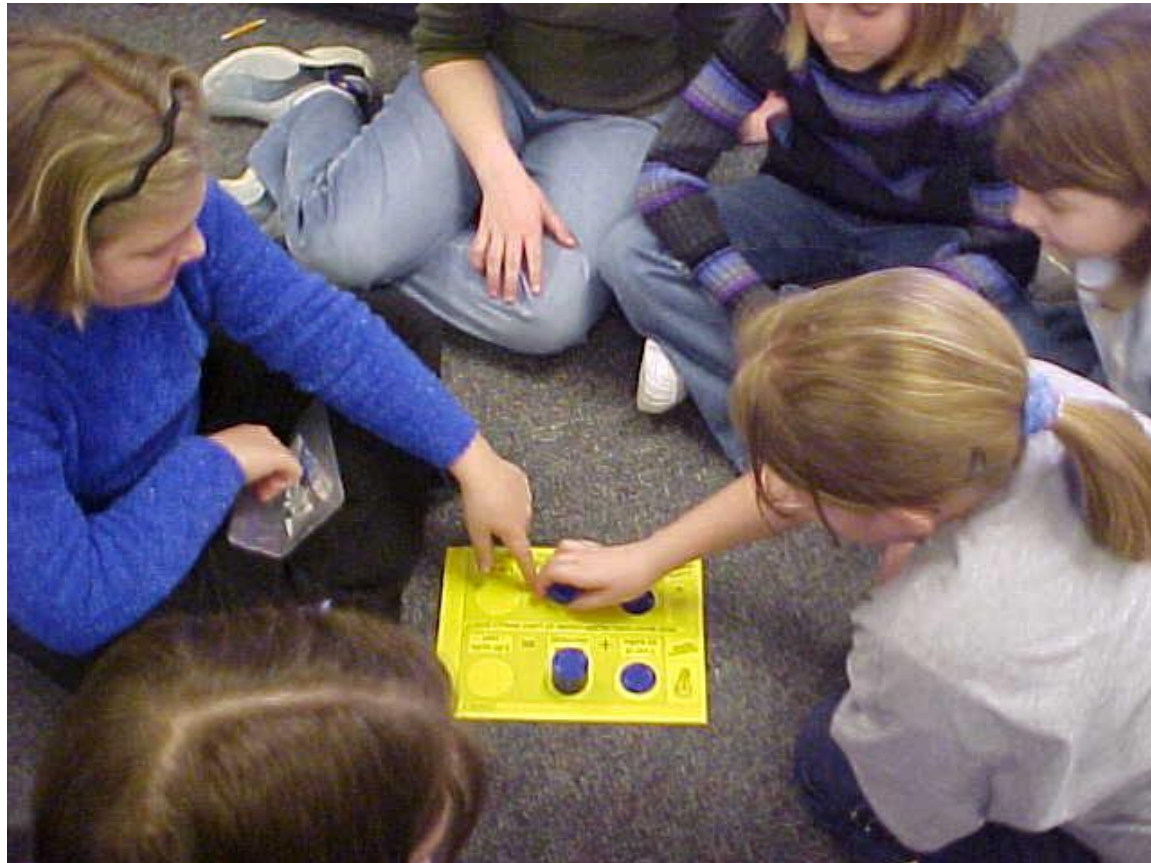


Conner High School Boone County





Beechgrove Elementary Kenton County





Excellence
The Kentucky NEED Project
recognizes
Beechgrove Elementary
for
participation in the 2005-06
Change a Light, Change the World Campaign
Ann Ruge
Kathy Taylor, Coordinator of the Kentucky NEED Project

Twenhofel Middle School Kenton County

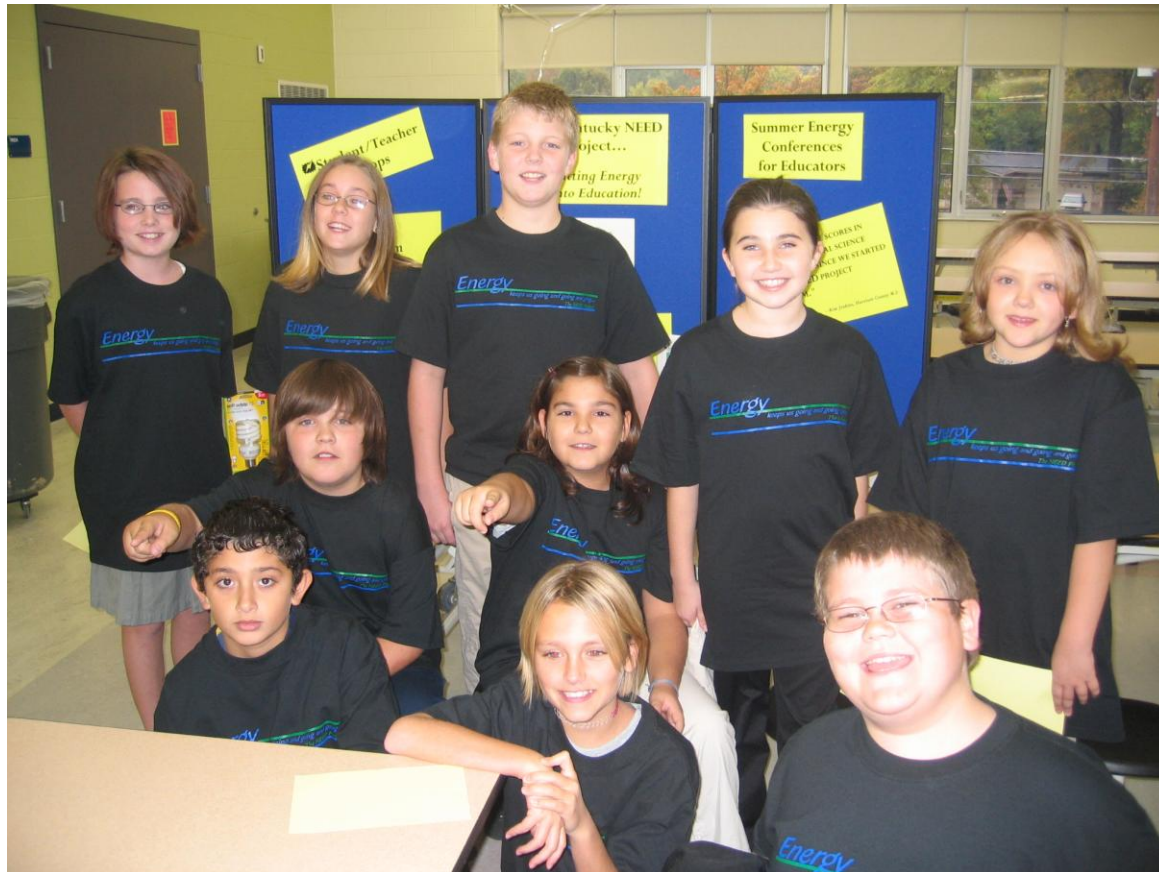


Change a Light Campaign

\$350.00 Mini-grants

Application Deadline
March 15, 2007

Caywood Elementary NEED Team Kenton County







Twenhofel NEED Team Kenton County







Glenn O. Swing Elementary Covington Independent

Filter change 200

SCHOOL **GOS** INVENTORY & WITHDRAWALS DATE **April 2**

ITEM	AMOUNT
April 20	20x20 = RTV 8 (4) 20x
Change next	20 x 20 = RTV 13 (4) 20x
	20 x 20 = RTV 12 (4) 20x
July 20	20 x 20 = RTV 9 (4) 20x
	20 x 20 = RTV 7 (4)
	20 x 20 = RTV 1 (4)
<hr/>	
April 1 20	16 x 20 = RTV 11 / 8 Fil

School Energy Teams...

- Bullitt County Schools (KEEPS)
- Danville Independent Schools (TRANE)
- Franklin County Schools (KEEPS)
- Kenton County Schools (DUKE)

SAVING ENERGY AT SCHOOL

BUILDING BUDDIES

Student Guide



Putting Energy into Education

SAVING ENERGY AT SCHOOL

MONITORING & MENTORING

Student Guide



Putting Energy into Education

SAVING ENERGY AT SCHOOL

LEARNING & CONSERVING

Student Guide



Putting Energy into Education

NEED Project PO Box 10101 Manassas, VA 20108 www.NEED.org

Museum of Solid Waste & Energy

A cooperative learning activity where students work together in small groups to:

- study solid waste and energy topics
- create 'museum' stations
- enhance reading, writing, public speaking and artistic skills

Kentucky NEED Youth Awards

May 8, 2007

Frankfort





ASSEMBLY 3



Kentucky Green and Healthy Schools

A light green square is in the top-left corner. A dark blue horizontal bar with rounded ends spans the width of the slide below the title.

NEED National Youth Awards

June 22-25, 2007 Washington, D.C.



Energy Tour for Kentucky Educators

June 11 – 15











NEED Summer Conferences

July 15 – 19 Alexandria, VA

July 22 – 26 Santa Fe, NM





PRIDE
OFFSHORE

ODECO

BILLY PUGH CO.



Sponsor Participation





Contact Information



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Project

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